

LAKE: ALLAGASH L
TOWN: T08 R14 WELS
COUNTY: PISCATAQUIS

MIDAS: 9787
TRUE BASIN: 1
SAMPLE STATION: 1

WHOLE LAKE INFORMATION

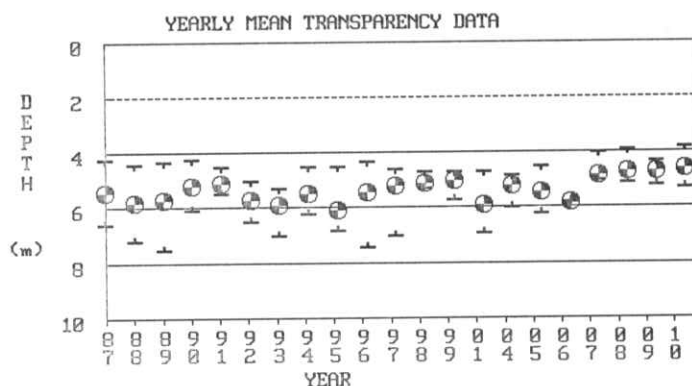
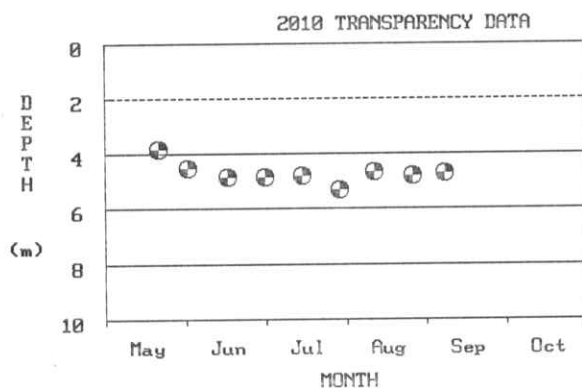
MAX. DEPTH: 27 m. (89 ft.)
MEAN DEPTH: 11 m. (35 ft.)
DELORME ATLAS #: 55
USGS QUAD: ALLAGASH LAKE
IFW REGION E: Moosehead Lake (Greenville)
IFW FISH. MANAGMENT: Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 1683.0 ha. (4158.6 a.)
FLUSHING RATE: 0.57 flushes/yr.
VOLUME: 186715536.0 cu. m. (151463 ac.-ft.)
DIRECT DRAINAGE AREA: 141.06 sq. km. (54.46 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. ALLAGASH L has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN COLOR	MEAN pH	MEAN ALK	MEAN COND.	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	(SPU)		(mg/l)	(uS/cm)	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS		SEC	CHL
					CORE	GRAB	GRAB	GRAB								C	G		
1986	-	-	-	-	6	-	8	-	-	-	-	-	1.0	1.0	1.0	-	-	-	-
1987	-	-	-	-	-	-	-	-	4.2	5.4	6.6	6	-	-	-	-	-	44	-
1988	-	-	-	-	-	-	-	-	4.4	5.8	7.2	6	-	-	-	-	-	41	-
1989	30	-	23.0	39	5	-	-	-	4.3	5.7	7.5	5	2.1	2.1	2.1	-	-	42	-
1990	-	-	-	-	-	-	-	-	4.2	5.2	6.1	6	-	-	-	-	-	46	-
1991	-	-	-	-	-	-	-	-	4.5	5.1	5.5	6	-	-	-	-	-	47	-
1992	-	-	-	-	-	-	-	-	5.0	5.7	6.5	6	-	-	-	-	-	42	-
1993	-	-	-	-	-	-	-	-	5.3	5.9	7.0	6	-	-	-	-	-	40	-
1994	-	-	-	-	-	-	-	-	4.5	5.5	6.2	6	-	-	-	-	-	43	-
1995	-	-	-	-	-	-	-	-	4.5	6.1	6.8	5	-	-	-	-	-	38	-
1996	23	-	13.0	37	5	-	10	-	4.3	5.4	7.4	6	1.7	1.7	1.7	-	-	44	-
1997	-	-	-	-	-	-	-	-	4.6	5.2	7.0	4	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	4.7	5.1	5.3	5	-	-	-	-	-	47	-
1999	-	-	-	-	-	-	-	-	4.7	5.0	5.7	5	-	-	-	-	-	48	-
2001	-	-	-	-	-	-	-	-	4.7	5.9	6.9	5	-	-	-	-	-	40	-

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SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK	COND.															
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
				/cm)	CORE	GRAB	GRAB	GRAB											
2004	-	-	-	-	-	-	-	-	4.8	5.2	6.0	6	-	-	-	-	-	46	-
2005	-	-	-	-	-	-	-	-	4.5	5.4	6.2	6	-	-	-	-	-	44	-
2006	34	7.30	13.4	36	6	-	-	-	5.8	5.8	5.8	1	3.8	3.8	3.8	-	-	-	-
2007	-	-	-	-	-	-	-	-	4.0	4.8	5.0	2	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	3.9	4.7	5.1	5	-	-	-	-	-	52	-
2009	-	-	-	-	-	-	-	-	4.3	4.7	5.2	4	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	3.8	4.6	5.3	5	-	-	-	-	-	53	-
SUMMARY:	29	7.30	16.5	37	6	-	9	-	3.8	5.3	7.5	21	1.0	2.2	3.8	-	-	45	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE							
	08/26/86		08/17/89		08/15/96		08/16/06	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	18.2	9.2	21.2	8.6	22.0	9.0	19.5	9.3
1.0	-	-	21.2	8.6	22.0	8.9	19.4	9.3
2.0	18.1	8.7	-	-	20.9	9.0	19.4	9.3
3.0	-	-	21.0	8.6	20.7	9.0	19.3	9.3
4.0	18.0	8.3	-	-	20.5	9.0	19.2	9.3
5.0	-	-	20.8	8.6	20.4	9.1	19.1	9.3
6.0	18.0	8.2	-	-	20.1	8.9	18.9	9.2
7.0	-	-	20.2	8.4	17.3	8.2	18.9	9.2
8.0	17.0	7.8	-	-	17.0	8.0	18.8	9.1
9.0	-	-	14.0	7.4	16.4	8.0	17.2	8.2
10.0	16.5	7.8	-	-	15.2	7.9	13.0	7.1
11.0	-	-	11.0	7.3	13.9	7.6	11.7	7.2
12.0	15.5	7.7	-	-	11.0	7.5	10.9	7.1
13.0	-	-	10.0	7.3	9.9	7.4	10.4	7.1
14.0	14.0	6.5	-	-	9.7	7.4	10.0	7.1
15.0	-	-	10.0	7.2	9.4	7.4	9.9	7.1
16.0	13.8	6.0	-	-	9.2	7.3	9.8	7.0
17.0	-	-	-	-	9.2	7.2	9.8	7.0
18.0	13.5	5.5	-	-	9.0	7.2	9.8	7.0
19.0	-	-	-	-	9.0	7.3	-	-
20.0	13.5	5.2	10.8	6.8	9.0	7.3	9.5	7.0
22.0	13.0	5.0	-	-	-	-	9.4	6.7
24.0	13.0	4.5	-	-	-	-	-	-
25.0	-	-	10.5	6.5	-	-	-	-
26.0	12.5	3.6	-	-	-	-	-	-
28.0	5.5	99.9	-	-	-	-	-	-

WATER QUALITY SUMMARY

ALLAGASH Lake, T08 R14 WELS (Piscataquis County)

MIDAS: 9787, Sample Station: 01 - Primary

Introduction: The Maine Department of Environmental Protection (Maine DEP) and the Volunteer Lake Monitoring Program (Maine VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine historical water quality trends. This dataset does not include bacteria, mercury, or nutrients other than total phosphorus (TP).

Water quality monitoring datasets for Allagash Lake have been collected since 1986. During this period, 4 years of basic chemical information was collected along with 17 years of Secchi disk transparency (SDT) measures (1987-2001, 2004-06). In summary, the water quality of Allagash Lake is considered to be average based primarily on measures of SDT, total phosphorus and chlorophyll-a (Chla). The potential for nuisance summertime algal blooms on Allagash Lake is low.

Water quality measures: Allagash Lake is a slightly colored lake (average color 27 SPU) with an average SDT of 5.5 meters (18.1 feet). The range of upper water column TP for Allagash Lake is 5 - 6 parts per billion (ppb) with an average of 5 ppb. Chla ranges from 1.0 - 3.8 ppb with an average of 2.2 ppb. Recent dissolved oxygen (DO) profiles show minimal DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is very low. Oxygen levels below 5 parts per million stress certain cold water fish and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

Comments: The flushing rate is the amount of time required for the lake water to be renewed each year and is a function of the watershed size and lake volume. The average annual flushing rate (0.57) for Allagash Lake approximates a single flush every two years.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: **ALLA9787**, Revised: 12/06, By: dbh